

This work is licensed under a
Creative Commons Attribution-NonCommercial-
NoDerivs 3.0 Licence.

To view a copy of the licence please see:
<http://creativecommons.Org/licenses/by-nc-nd/3.0/>

This work is licensed under a
Creative Commons Attribution-NonCommercial-
NoDerivs 3.0 Licence.

To view a copy of the licence please see:
<http://creativecommons.Org/licenses/by-nc-nd/3.0/>

(832)
RESERVE

THE FOOD SITUATION IN THE HORN OF AFRICA

By

Henry Rempel
WORKING PAPER NO. 420



INSTITUTE FOR DEVELOPMENT STUDIES
UNIVERSITY OF NAIROBI
P.O. BOX 30197
NAIROBI, KENYA

January, 1985

Views expressed in this paper are those of the author. They should not be interpreted as reflecting the views of the Institute for Development Studies or of the University of Nairobi.

This paper is not for quotation without permission of the author, as specified in the Copyright Act, Cap 130 of the Laws of Kenya.

THE FOOD SITUATION IN THE HORN OF AFRICA

By

Henry Rempel
Research Associate
Institute for Development Studies
University of Nairobi
Nairobi, Kenya

Abstract

In this paper, available data from World Bank and Food and Agriculture Organisation sources are presented in a brief, summary discussion of the food situation in Ethiopia, Kenya, Somalia, Sudan, Tanzania and Uganda. Specifically, the six countries are shown to be significant net exporters of 'food and beverages'. Subjects discussed in the paper include: food production, food imports, food aid, food exports, land use, rural demographic issues, and aggregate investment patterns. The intent is to highlight various aspects of the food crisis in the Horn of Africa and to initiate a policy discussion on various means that could be used to address the contemporary food situation.

January, 1985

Views expressed in this paper are those of the author. They should not be interpreted as reflecting the views of the Institute for Development Studies or of the University of Nairobi.

This paper is not for quotation without permission of the author. Copyright Act, Cap 130 of the Laws of Kenya (January, 1985)

TABLE OF CONTENTS

	Page
1. Executive Summary	1
2. Some Issues for Policy Debate	3
2.1 General Policy Issues	3
2.2 Government Policy Issues	4
2.3 Policy Issues for Non-Governmental Organisations	6
3. The International Exchange of 'Food'	7
4. The Growing Food Problem	9
5. Demographic Variables Related to the Food Situation	13
6. Land Use Patterns	16
7. Growth in Rural Labour Force and Observed Changes in Labour Productivity	19
8. Levels of Investment	23
9. The Role of Agricultural Exports in the Horn of Africa	25
 Bibliography	 29

LIST OF TABLES

Table 1. Food Consumption, Food Production, Food Imports, Food Aid in the Horn of Africa	11
Table 2. Population Growth in the Horn of Africa	15
Table 3. Land Use Patterns in the Horn of Africa	17
Table 4. Labour Force Growth and Labour Productivity in the Horn of Africa	21
Table 5. Investment Patterns and Government Spending Priorities in the Horn of Africa	24
Table 6. Agricultural Exports, Energy Imports, Terms of Trade and Debt Service Ratios in the Horn of Africa	26

TABLE OF CONTENTS

Page	
1	Executive Summary
3	Some Issues for Policy Makers
5	2.1 General Policy Issues
9	2.2 Government Policy Issues
6	2.3 Policy Issues for International Organizations
7	3. The International Exchange of Food
9	4. Food Growth and Food Demand
13	5. Demographic Variables Related to the Food Situation
16	6. Land Use Patterns
17	7. Growth in Rural Labour Force and Increased Savings in
19	Labour Productivity
23	8. Levels of Investment
25	9. The Role of Agricultural Exports in the Horn of Africa
29	Bibliography

LIST OF TABLES

Table 1	Food Production and Food Distribution in the Horn of Africa
11	Food Aid in the Horn of Africa
15	Table 2. Population Growth in the Horn of Africa
17	Table 3. Land Use Patterns in the Horn of Africa
19	Table 4. Labour Force Growth and Labour Productivity in the Horn of Africa
21	Table 5. Investment Patterns and Government Spending
25	Table 6. Agricultural Exports, Energy Imports, Levels of Exports and Debt in the Horn of Africa
26	Africa

The Food Situation in the Horn of Africa

1. Executive Summary

1. Sub-Saharan Africa is seen to have an escalating 'food deficit' problem, yet it remains a net exporter of food. When exotic foods, such as coffee, cocoa and tea, and industrial crops, such as cotton, sisal and pyrethrum, are added, sub-Saharan Africa appears as a significant net exporter of agricultural commodities. This general situation in Sub-Saharan Africa also holds for the six countries in the Horn of Africa: Ethiopia, Kenya, Somalia, Sudan, Tanzania and Uganda.

2. Currently, three of the countries in the Horn of Africa -- Ethiopia, Kenya and Sudan -- are listed as having "severe food shortages" while Tanzania and Somalia are seen to have "inadequate food supplies." Only Uganda is able to address its immediate food needs.

3. A growing food deficit reflects both declining food production per capita and a shift in taste preference, by an emerging elite, away from local staples to wheat and rice. Such a shift in taste preference is a function of increasing per capita income, and is fostered with food aid. Wheat and rice are not grown in adequate quantities, so the effect of the taste transfer is increasing food imports. Where genuine food shortages exist, the preferred approach to meeting such shortages would be increased supplies of local staples.

4. The six countries in the Horn of Africa are experiencing rapid population growth. The cause of the population growth is a declining death rate, primarily lower infant and child mortality rates, without a corresponding decline in the crude birth rate. The population increase is not seen as the primary cause of a growing 'food deficit' situation, but the extent and nature of the population growth does increase significantly the cost of achieving development.

5. A variable which needs to be addressed is the continuing high birth rate. For the majority of the people, operating as small-scale peasant farmers, frequently at subsistence levels, there is little or no incentive to reduce family size. For such peasant families, children still represent the primary means of social security, the opportunity cost of the children remains quite low, and the opportunity cost to women of child-rearing also is low.

- 2 -

6. The Horn of Africa is not well endowed with arable land. The supply of arable land has increased some during the past two decades. With the exception of Uganda, the countries have increased the proportion of arable land devoted to export crops. The combination of increased export cropping and food production being forced on to marginal land has reduced the proportion of arable land devoted to cereal crops in three of the six countries. With less land devoted to food production and with land productivity increases occurring at rates below the rates of increase of population, declining food production per capita was inevitable.

7. The six countries in the Horn of Africa are predominantly rural. As a result, continued high rates of labour force growth mean the absolute size of the respective rural labour forces are growing as well. Historically, in developed countries, rapid increases in agricultural productivity were associated with a declining rural labour force. In the Horn of Africa, agricultural labour productivity increases will be more difficult to achieve as the rural areas, in the short term at least, will be required to absorb a growing number of people.

8. The countries in the Horn of Africa all have dual economies. Labour productivity in non-agricultural activity continues to exceed labour productivity in agriculture by a multiple of five or more. Actively pursuing a unimodal approach to agricultural development is seen as one means of striving toward greater integration of agricultural and non-agricultural activities.

9. Given the relative poverty of the six countries, the proportion of GDP devoted to investment remains well below that of the countries which have achieved some degree of development. The exception is Kenya, which has attracted significant quantities of foreign investment. In all six countries, the governments consider expenditures on the military as important or more important than investment in agriculture.

10. Severe foreign exchange constraints necessitate extensive agricultural exports from the Horn of Africa. At the macro-level, such exports can be justified, both on grounds of comparative advantage and economic development. At the micro-level, the international exchange of 'food' places a sizable number of people, with a limited economic franchise, at increased risk.

2. Some Issues for Policy Debate

2.1 General Policy Issues

1. In a dual economy, peasant-based agriculture is a relative inexpensive means of 'holding' the reserve army of potential employees. Peasants supply food for themselves and they can be induced to supply labour to the formal sector as required. Where peasants are viewed primarily in such 'holding' terms, the ability of small-holder agriculture to contribute in the form of growing supplies of food, a growing market for formal sector output, and a significant source of savings will be severely constrained. Policies vis-a-vis peasants need to be reviewed, with the intent of enabling small-holder agriculture to make a more complete contribution to the development process.

2. An additional effect of viewing peasants as merely a means of 'holding' the reserve army of potential employees is that peasants have little or no incentive to reduce family size. The provision of family planning services will have the desired effect once peasants want to reduce family size. The motivation affecting desired family size is an element which needs to be incorporated into development programs for peasant households.

3. Women are the primary producers of food, they have almost total control over nutrition decisions, and they are significant contributors to decisions on desired family size. Therefore programs designed to improve the nutritional status of the people, both in the short term and in the long run, need to be centred on women. A means to this end is to incorporate women into the planning, implementation and evaluation of each agricultural development program.

4. The most vulnerable groups within a system of an international exchange of 'food' are the landless, farm labourers, the unemployed and the marginally employed. To address their food needs, food security should be focused on the local staples consumed by these low-income groups. Their needs can be addressed by limiting food subsidies to the low-income staples only. Similarly, increasing the producer price of such staples, relative to the price of other farm outputs, will increase the supply of low-income staple foods. Re-directing research resources and extension services toward such staples can serve to increase the yield per hectare in the production of these staple food crops.

2.2 Government Policy Issues

5. One option available to agricultural exporting countries is to rely on the ready availability of food aid as a means of conserving foreign exchange. Such a policy carries with it specific political implications: 1) the availability of food aid declines as the stock of excess supplies of food decline, so food aid is least available when needed most; 2) dependence on external sources of food reduces the control of government over the local food situation; 3) to maximise their political leverage, donor countries prefer to wait until malnutrition is openly visible before entertaining the possibility of providing food aid; and 4) the receiving country must accept what is offered, which need not meet local taste preferences nor be the preferred form of nutrition.

6. Foreign aid donors and international lending agencies are exerting considerable pressure to increase farm output prices. Their concern is not food security, but rather to limit the erosion of the foreign exchange situation, i.e., to protect the abilities of the countries in the Horn of Africa to service their international debt and to maintain their ability to import goods. The underlying premise of this advice is the behaviour of commercial farmers, the only farmers known to developed country advisors. For peasant farmers, price security is of prime importance. Price security includes: a clear indication of what price will be paid, a definite commitment that the announced price will be paid in full at delivery, and an assurance that market delivery of farm output will be possible. Should the government desire to affect planting as well as marketing decisions, the relative prices of the various farm outputs need to be announced before planting decisions are made.

7. Selective judgement needs to be exercised in any attempts to expand agricultural exports. The average yield for an export crop, at current world prices, may well command more food on the international market than can be produced on the land used for the export crop. But, if increased production serves to depress world prices of all exports of that crop, such additional export crop output is not likely to command more food on the international market than can be grown locally on the same land. Increased use of agricultural land for export crops should be limited to those crops where the international demand is sufficiently strong (or distinctly elastic) to absorb increased supplies at prices similar to existing prices.

8. For those crops where international commodity agreements exercise effective world supply management, attention should be focused on improved quality (and/or increased processing) of the commodity.

9. Lack of water is the primary reason why so much of the land in the Horn of Africa is not considered arable at this time. Therefore, minimising the water embodied in agricultural exports is an appropriate selection criteria. Where other national or international organisations are pressing for increases in agricultural exports, their being required to finance the development of irrigation, to bring new land into production, could be a condition for agreeing to such exports.

10. To enable the formal sector to develop the capacity to provide needed agricultural inputs and to process the farm output (a central element in a unimodal agricultural development strategy), a land tenure system is needed which facilitates the ability of peasant farmers to develop their land and effectively constraints the establishment of either large state or private farms that rely on imported inputs, substitute scarce capital for abundant labour, and produce primarily for export.

11. Given the limited economic franchise of a sizable portion of the population, the world market price of an export crop does not reflect the true opportunity cost of exports to the exporting country. This fact could serve as a basis for negotiating better export crop prices within international commodity agreements or new international economic order forums. Such a bargaining position would require coordination among the major exporters of a particular commodity. It is a bargaining position which would not be applicable if both low income countries and developed countries are exporting the same commodity, e.g., the competition between Somalia and Australia for the export of live animals to Saudia Arabia.

12. The Horn of Africa is strategic to the territorial interests of the major world powers. As a result, the countries in the Horn of Africa have been drawn into the conflicts between these major powers. Because of their involvement in this larger international conflict, military expenditures within certain countries in the Horn of Africa have escalated. The opportunity cost of such military expenditures, and their concomitant military action, has been reduced food security. Disengagement from super-power territorial struggles, plus renewed political activity to overcome

internal conflict, can be seen as major steps toward improved food security.

2.3 Policy Issues for Non-Governmental Organisations

13. There is a real need for coordination among non-governmental organisations (NGO's) involved in development in the Horn of Africa. Currently, NGO's have a limited understanding of what constitutes development, beyond the immediate success of their individual projects. Also, there is very little exchange of ideas and replication of successful programs among NGO's; each NGO insists on the right to repeat the errors and failures of the other NGO's.

14. Given their relatively small size, their first-hand knowledge of the local situation, and their relative independence from governments, NGO's have the opportunity to be innovative. This role of local innovator should be pursued more actively by NGO's, especially with reference to food security issues. The impact on government policy and the extent of program replication would be indicators of successful innovation.

15. To engage in development with peasant farmers considerable time and effort needs to be invested to understand their mode of operation. African peasants are now recognised as having developed fairly complex farming systems. They have also been shown to be responsive to price changes, subject to their primary concern, the desire to minimise the risk involved in ventures related to their immediate livelihood. A general approach to peasant development is to address their most immediate concerns first -- likely secure food sources, easier access to water, etc. -- and then let each peasant household decide in what direction it wants to go to diversify its sources of additional income.

16. Increased farm output will be a primary goal for peasant farm development programs. A complementary goal would be improved on-farm grain storage. The availability of on-farm storage will reduce the significant losses of food to rodents and insects and will reduce the dependency of farmers on traders and/or government institutions as the means of storage between harvests. Experimentation will be required, to determine the means of storage that are both effective and within the abilities of the local people to construct, use and maintain.

17. To increase the food security for the most vulnerable groups, we have noted in 4 above the need to improve the production of the staple crops consumed by the low-income groups in society. NGO's can set a pattern here, demonstrating ways of improved production and processing of that set of staple foods which serve to provide the best nutrition per unit of land and labour inputs.

18. An additional way to address the overall food situation is experimenting with means of small-holder production of those foods currently imported. If successful, this would provide farm income from a source with a growing local market, would reduce the country's overall foreign exchange needs, and would make the peasant farmers less vulnerable than with export crops, as the farm output could be consumed whenever farm income deteriorates because of lower prices or partial crop failure.

19. Water is an important constraint in the Horn of Africa. Cultivation methods, crop types and farming practices that conserve water would address this problem. Here is another area where NGO's could work at being local innovators.

20. NGO's have some ability to command food aid. They also have a reputation of being able to deliver food faster, directly to those in need, than can the major international donors. Despite this ability and reputation, questions need to be raised in each situation whether bringing in external sources of food is the preferred way to address that expression of malnutrition. The primary case for external food aid is a temporary increase in food supply designed to counter either speculation-based inflation in food prices or the disruptive effects of food hoarding. In other situations, the purchase and transfer of food within the country would be the preferred approach to counter temporary, location-specific food shortages. In pastoral areas, local droughts tend to depress the price of livestock and increase other food prices, reducing the ability of the local people to address their food needs. Transferring food in from other localities, and exchanging it for livestock at pre-drought prices, is one way of addressing this situation.

3. The International Exchange of 'Food'

According to North American media, sub-Saharan Africa has a growing "food deficit" problem. One quarter of the population is seen

to be hungry; twenty per cent of the grain needs are met by imports; some 3 billion dollars are being transferred annually to the richest countries of the world in payment for food (Frankel, 1984: A30).

It is a North American perception that it is American food production which provides the ultimate means of survival in sub-Saharan Africa. The U.S. Department of Agriculture has estimated African food imports will need to increase by a multiple of two or three times during the 1980's merely to close the gap between food production and population size (North-South Institute, 1983: 2). A failure to rely on food aid and food imports will result in periodic, regional famines.

This North American perception is based on an analysis of a subset of agricultural production, primarily cereal grains. When total agricultural production is considered, there are only a limited number of African countries in a deficit international trade position. Indeed, for sub-Saharan Africa as a whole, excluding food aid, food exports exceed food imports (World Food Council, 1983: 6).

The observed food deficit arises because significant amounts of agricultural production in Africa are exported, primarily to developed countries. These exports include such semi-exotic foods as coffee, cocoa, tea, bananas, groundnuts, and sugar and such industrial crops as cotton, sisal, rubber, palm oil and pyrethrum. Therefore, sub-Saharan Africa's growing "food deficit" can also be seen as a growing international exchange of semi-exotic food and industrial crops for North American grain.

In an attempt to make this international exchange more specific, we have drawn together a set of relevant data for the six countries in the area of the Horn of Africa: Ethiopia, Kenya, Somalia, Sudan, Tanzania and Uganda. A primary focus is the food situation. To place the food situation in perspective, we also discuss briefly demographic, production and trade variables. As data are drawn from international sources, all information is given as national totals only. With these data one cannot analyse regional differences within any one country.

4. The Growing Food Problem

The nature of the food crisis in Africa has been documented extensively. The calories of food available per capita in 1980 was estimated to be ten per cent less than it had been ten years earlier (Crawley, 1980: 27). As of 1975, in 30 of the 50 countries in Africa, at least 15 per cent of the population was malnourished (Scrimshaw and Taylor, 1980: 28). In 27 of the countries there have occurred one or more famines in the 1950 to 1979 period (Kidron and Segal, 1981: Map 44). In 19 countries the rate of growth of population now exceeds the rate of growth of food production (Frankel, 1984: A31). Currently five countries face "severe food shortages" while an additional 14 have "inadequate food supplies" (Rogal, et. al., 1984: 23). Of the six countries of immediate interest, Sudan, Ethiopia and Kenya are listed in the first group while Tanzania and Somalia are in the second group.

The growing dependence on imported cereal grains in sub-Saharan Africa is evident in the increase in imports of cereal grains from 7.7 kgs. per capita in 1961-63 to 32.7 kgs. per capita in 1980-82 (Cleaver, 1984: Table 9). In part, this reflects the rapid increase in per capita income for a sub-set of the population in these countries. Diet patterns change as income increases. At low levels, approximately \$250 to \$300 per capita, calorie intake is drawn primarily from the local staples. From that level of income up to approximately \$750 per capita there is a noticable shift in preference away from local staples to wheat and rice. Beyond that income level, a more varied diet is sought through an increased use of fats, sugars, fruits, vegetables and animal products.*

The process of change in preferences toward wheat (and to a lesser extent maize) is encouraged through food aid. For sub-Saharan Africa, food aid in the form of cereal grains has increased from 2.7 kgs. per capita in 1975-77 to 6.4 kgs. per capita in 1981-83 (Cleaver, 1984: Table 10).

* These ranges are very rough approximations and would vary some from country to country, depending in part on the relative prices of these types of foods. The income ranges are given in 1980 U.S. dollars.

The food situation in the six countries under study is presented in Table 1. As a point of reference, where possible, the weighted average for low income countries (excluding China and India) and the weighted average for middle income countries are provided as well.*

As indicated in Table 1, for low income countries food availability, measured in terms of calories, was improving gradually from 1960 to 1977, and then deteriorated somewhat. Middle income countries, in contrast, started with a higher level of food availability and were able to sustain the trend of improved food availability through 1981. In the Horn of Africa, Ethiopia and Kenya show a deteriorating situation throughout, stabilising well below daily requirements from 1977 to 1981. Tanzania and Uganda showed improved food availability through the 1960's and a deteriorating situation from 1970 onwards. Somalia shows the exact opposite. Only in Sudan has there been continued improvement in food availability over the two decade period.

Food availability measured in grams of protein per day show trends very similar to that of calorie (item 2 in Table 1). Among the six countries there is considerable variation in the amount of protein available per capita, but all exceed the 1971 FAO recommended minimum of 40 grams per day (Poleman, 1981: 12).

Food availability is deteriorating because food production per capita is declining (item 3, Table 1). The one exception was Sudan, which shows a higher level of per capita food production in 1977-79 than in 1969-71. Even there, a significant deterioration has set in after 1977-79. All countries have experienced at least a ten per cent decline in food production per capita during the 1970's. In contrast, low income countries have experienced only a three per cent decline while middle income countries have increased food production per capita by eleven per cent during the decade.**

* For 1982, low income countries were the 34 countries with a per capita Gross National Product (GNP) less than \$425. Middle income countries were the 60 countries with a GNP greater than \$425 but less than \$7000. In 1982 five of the countries were low income; the exception was Sudan, which was ranked as the lowest of the middle income countries (World Bank, 1984: Table 1).

** This does not necessarily mean food production has declined. All six countries experienced rapid population growth during the decade (see item 2, in Table 2).

Table 1. Food Consumption, Food Production, Food Imports and Food Aid in the Horn of Africa.

	Ethiopia	Kenya	Scmalia	Sudan	Tanzania	Uganda	Low Income Countries ⁺	Middle Income Countries
1. Daily Calorie Supply Per Capita: 1981 as Asia Percentage of Requirement: 1960	1758	2056	2119	2406	1985	1778	2082	2607
1970	91	99	89	83	90	97	87	100
1977	87	95	82	91	91	98	90	101
1981	75	88	88	93	89	91	96	109
1981	76	88	100	99	83	80	91	111
2. Protein (grams/day)								
1960	72	68	76	65	46	51	52	60
1970	69	65	68	66	49	55	52	60
1977	61	61	65	68	48	59		
1980	59	56	78	69	46	50	57	65
3. Average Index of Food Production (1969-71=100)								
1977-79	84	92	85	105	94	90	97	107
1980-82	82	88	60	87	88	86	97	111
4. Cereal Imports (000's metric tons)								
1974	118	15	42	125	431	37	8337	41418
1982	273	194	406	611	360	68	6493	66303
5. Food Aid in Cereals (000's metric tons)								
1974/75	59	2	110	50	148	16	4029	2390
1981/82	178	115	175	185	254	49	3391	4463
6. Projected Cereal Shortfall 1984/85 (000's metric tons)								
- Marketing year	June/Dec	July/June	Jan./Dec.	July/June	July/June			
- Total Shortfall	900*	900	220	850	430			
- Estimated Imports	100*	475	70	200	174			
- Food Aid Required	800*	425	150**	650	256			

+ Low income countries excluding China and India.

* Reflects estimated logistic capacity rather than actual cereal requirements.

** Primarily reflects food aid required for the refugee population.

Sources: Item 1 - 1960 and 1970, World Bank, 1983, Vol.2: Social Data Sheets 1 and 2; 1977, World Bank, 1981: Table 22; 1981, World Bank, 1984: Table 24. Item 2 - World Bank, 1983, Vol.2: Social Data Sheets 1 and 2. Item 3 - 1977-79, World Bank, 1981: Table 1; 1980-82, World Bank, 1984: Table 6. Items 4 and 5 - World Bank, 1984: Table 6. Item 6 - Food and Agriculture Organization, 1984: 5.

The deterioration of food availability need not correlate directly with the deterioration in per capita food production as the countries had different capacities (or willingness) to import cereal grains (item 4, Table 1). Five of the six countries were receiving large quantities of food aid in the 1981/82 crop year. The favourable effect of food imports and food aid is especially evident in Somalia and, to a lesser extent, in Sudan. Of interest, in 1981/82 the middle income countries received more food aid than the low income countries excluding China and India.

The Food and Agriculture Organisation (FAO) projections for the coming crop year show a growing dependence on food aid (item 6, Table 1). Kenya, because of the drought, is seen to have an especially large shortfall through June of this year. Ethiopia, again because of the drought, has a projected shortfall in 1985 in excess of its logistical capacity to import and distribute food. In Sudan there is a sharp increase, relative to 1981/82, in the need for food aid. The reason given is the drought in the northern part of the country (Food and Agriculture, 1984: 4). A comparison of projected 1984 cereal grain production with actual production in 1982 shows a drop of 600,000 metric tons of coarse grains (Food and Agriculture, 1984: 25). Also, Table 1 shows a large decline in Sudan's ability to import cereal grains between 1981/82 and 1984/85.* Tanzania's requirements remain high, but have stabilised. Somalia's projected food aid needs are for its sizable refugee population. Only Uganda is shown as able to produce enough for its overall food needs.

As an international organisation, the FAO focuses primarily on natural causes, e.g., drought, as the explanation for the food shortfall. Another factor which is clearly present is both internal and international conflict. Such conflict generates refugees, affects the capacity to import food, reduces the ability to farm land under dispute and eliminates both the willingness and ability to address environmental issues. The effect of conflict is especially evident in Ethiopia and, to a lesser extent, in Somalia. Increasing hostilities in Sudan will cause the extent of the food shortfall there to escalate. Even in Uganda, the on-going civil strife is generating internal refugees who will require external intervention, if not external food.

* This decline in capacity to import cereal grains could reflect a combination of a variety of factors: less cotton produced, lower cotton prices, pressing import needs in other parts of the economy, increasing cost of imports, or a change in government priorities. We do not have access to information on Sudan to be able to identify which of these factors are involved.

Also, it should be kept in mind that FAO projected food needs represent an attempt to match excess production of cereal grains, primarily in North America, with foreseen food deficits. The FAO projections are an indicator that a food problem exists. In part, such a projected deficit reflects a shift in taste preferences, away from local staples to wheat and rice, among the emerging elite. The portion of the projections actually reflecting a food shortage, require increased supplies of whatever are the local staples of the people involved. In some cases these could be purchased in other parts of the same country. Also, they likely could be imported at costs below those of purchased cereal grains, but not at prices less than cereal grains in the form of food aid.

5. Demographic Variables Related to the Food Situation

One major thesis on Africa's food situation focuses on population growth (Eicher, 1982: 151). Given the failure of food production increases to keep pace with population growth, and given widespread poverty, many go hungry; malnutrition is prevalent.

In the previous section we already noted the decline in food production per capita in all six countries during the 1970's. Here we examine the denominator in that ratio: population growth.

A comparison of the low income country and middle income country rates of growth of population (item 2 in Table 2), indicates the low income countries were following the middle income countries by one decade. The exception is the projected rate for 1980 to 2000; the rate of growth declines in middle income countries, but it continues to increase for the low income countries. The primary reason for this difference is the much larger decline in the crude birth rate for the middle income countries than for the low income countries (item 3, Table 2).

In the Horn of Africa, as is shown in Table 2, the increased population growth reflects primarily the rather dramatic decreases in the infant mortality and child death rates. Crude birth rates have remained fairly static during the period 1960 to 1982.

Of the six countries, only Somalia has a population growth rate pattern similar to that of middle income countries. The reason

for the lower growth rates is the smaller decline in the crude death rate than for the other five countries. Both the infant mortality rate and the child death rate were higher and have remained higher in Somalia. Sudan's rate of population growth peaked in the 1970's but at a rate somewhat higher than the average for low income countries. Therefore, the projected rate for 1980-2000 remains at a level equal to the average for low income countries. Sudan has experienced a slight decline in the crude birth rate and only a moderate decline in the crude death rate. The infant mortality rate has remained relatively high.

In both Ethiopia and Uganda there was a decline in the rate of population growth during the 1970's. For Ethiopia this could signal a downward trend as the birth rate has started to drop, but the level of the crude birth rate is still too high, relative to the crude death rate, to signal a significant reduction in the rate of growth of population. In Uganda it may well reflect the turmoil during the period of the Amin administration. Where the infant mortality and child death rates were below average in 1960, they are both above average for low income countries in 1982.

In Kenya and Tanzania the rate of population growth increased throughout the period. In Kenya, the combination of an unusually high crude birth rate and a very low crude death rate is causing the population to double approximately every 16 years. Both countries have a commendable record with reference to reduced infant mortality and child death rates. It is the static crude birth rate which is causing the problem.

Declining birth rates are generally associated with a reduced need to rely on one's children for social security, an increase in the opportunity cost of children (they contribute less production and cost more to educate, etc.), and an increase in the opportunity cost of time for women. The latter is related to education for women and employment opportunities for women. Also, there is a positive correlation among countries between the decline in the birth rate and the degree of equality of distribution of income and wealth in a country. Kenya and Mexico serve to illustrate this at one extreme.

The high rates of population growth clearly cause an increase in the cost of achieving development. First, the rate of growth in food production must be higher to feed the population. Second, the rate of

Table 2. Population Growth in the Horn of Africa

		Ethiopia	Kenya	Somalia	Sudan	Tanzania	Uganda	Low Income Countries+	Middle Income Countries
1. Population (Mill.)									
	1982	32.9	18.1	4.5	20.2	19.8	13.5		
-projected	1990	19	26	5	25	26	17		
-projected	2000	24	40	7	34	36	25		
2. Population Growth (average annual %)									
	1950-60	2.1	2.5	1.8	2.0	2.2	2.8	1.8	2.5
	1960-70	2.4	3.2	2.8	2.2	2.7	3.0	2.5	2.6
	1970-82	2.0	4.0	2.8	3.2	3.4	2.7	2.6	2.4
-projected	1980-2000	3.1	4.4	2.4	2.9	3.5	3.4	2.9	2.2
3. Crude Birth Rate (per thousand)									
	1960	51	55	48	47	47	49	47	43
	1982	47	55	48	45	47	50	44	35
4. Crude Death Rate (per thousand)									
	1960	28	24	29	25	22	21	24	17
	1982	18	12	25	18	15	19	16	10
5. Infant Mortality Rate (0-1 year; per 1000)									
	1960	172	112	213	168	144	139	163	126
	1982	122	77	184	119	98	120	114	76
6. Child Death Rate (1-4 year; per 1000)									
	1960	42	21	61	40	31	28	31	23
	1982	25	13	47	23	18	22	19	10
7. Dependency Ratio (%)									
	1960	87	101	87	88	84	86		
	1980	93	117	88	91	99	102		
	2000	95	120	87	93	100	104		

+ Low income countries excluding China and India.

Sources: Item 1 - World Bank, 1984: Table 19. Item 2 - 1950-60, World Bank, 1983 Vol. 1: Table 1; 1960-2000, World Bank, 1984: Table 19. Items 3 and 4 - World Bank, 1984: Table 20. Items 5 and 6 - World Bank, 1984: Table 23. Item 7 - World Bank, 1984: 194.

growth of GNP has to be higher to maintain or increase the material standard of living. Third, with a rapid decline in infant mortality, the dependency ratio (the ratio of dependents to those persons economically active) increases.* After a lag of some 15 to 20 years the dependency ratio begins to decline but there occurs both a rapid increase in the growth of the labour force and the number of women entering child bearing age. Fourth, the proportion of resources that a society must devote merely to educate this large population of children reduces the ability to engage in other forms of investment.

Where we have recognised the cost inherent in rapid population growth, it does not necessarily follow that the population growth is the cause of relatively low rates both of economic growth and the growth in food production. For Africa as a whole, there is not a land constraint. According to Eicher (1982: 153): "... more than half of the arable land that is idle in the world is in Africa." In the short term, with a relatively static technology, population pressure is forcing people on to marginal land (Johnston, 1980: 71-72; 75-76), or on to land infested with tsetse flies (Eicher, 1982: 153). This affects agricultural productivity adversely, aggravating the current food crisis, but population pressure cannot be seen as a primary cause of an ongoing food problem. Historically, the decline in the rate of population growth has followed, rather than preceded, economic development.

6. Land Use Patterns

The primary determinants of food production are land, labour and the capital and technology used to enhance their productivity. We consider first the patterns of land use evident in the six countries. Land use includes the amount of arable land available, the types of crops grown on the available land, and the yields obtained from the land. The available data on this subject are provided in Table 3.

Arable land is defined as "land under temporary cultivation (double-cropped areas are counted only once), temporary meadows for mowing or pasture, land under market and kitchen gardens (including cultivation under grass), and land temporarily fallow or lying idle." (Food

* To place the dependency ratios reported in Table 2 in perspective, in 1980 the dependency ratio in the United States was 51 while in Canada it was 46 (World Bank, 1984: 195).

and Agriculture Organisation, 1983a: 3). For our purposes, land under permanent crops has been included as arable land.

Table 3. Land Use Patterns in the Horn of Africa.

	Ethiopia	Kenya	Somalia	Sudan	Tanzania	Uganda
1. Arable land, including Permanent Crops (1000 ha.)						
1960-65	12,044	1,723	969	6,180	3,349	4,426
1981	13,960	2,316	1,116	12,448*	5,190	5,760
2. Arable Land Per Capita						
1981	0.4	0.1	0.2	0.7	0.3	0.4
3. Percentage of Arable Land in Cereal Crops						
1960-65	56	90	31	32	39	23
1982	34	70	50	40	40	13
4. Percentage of Arable and Land in Roots, Tubers and Pulses:						
1981	3	30	3	1	29	17
5. Percentage of Arable Land in Permanent Crops						
1960-65	4	16	1	1	22	22
1982	5	21	1	1	20	28
6. Percentage of Arable Land in Major Export Crops**						
1960-65	5	13	1	6	12	10
1982	6	18	3	11	15	8
7. Cereal Crop Yields (kg/ha)						
1960-65	728	1,038	686	815	742	907
1976-78	909	1,539	510	682	781	1,147
1980-82	1,201	1,677	644	692	679	1,519
Annual Rate of Growth (%)						
1960/65 to 1980/82	2.7	2.6	-0.3	-0.9	-0.5	2.8
8. Real Productivity per Hectare of Arable Land (U.S. \$)***						
1960	43	359	177	657	86	75
1981	73	551	216	270	94	12
Annual Rate of Growth (%)	2.6	2.1	1.0	-4.1	0.4	-8.4

* This large shift likely was caused by the exclusion of shifting cultivation fallow in 1960-65.

** The export crops considered were cocoa, coffee, cotton, groundnuts, sisal, sugar and tea.

*** The productivity values are not comparable among the six countries as different base years were used to translate them to constant U.S. dollars.

Sources: Relevant tables in Food and Agriculture Organization, 1975, 1979 and 1983a. Value of agriculture output, for item 8, was taken from World Bank, 1983, Vol. 1: Economic Data Sheet 1.

In Table 3, we note first the region is not particularly well endowed with arable land. The most densely populated is Kenya, with 0.1 hectares of arable land per person. Sudan has the best ratio of arable land per capita, 0.7 hectares. During the two decade period, there has been some expansion of arable land in each of the six countries.

Cereal crops play a fairly prominent role in the Horn of Africa, with the exception of Uganda. In three countries -- Ethiopia, Kenya and Uganda -- the proportion of arable land used for cereal crops has declined. In Kenya, a partial explanation would be the extension of farming to marginal land, reducing the proportion of land used to grow more than one crop a year. Roots, tubers and pulses are important food crops in Kenya, Tanzania and Uganda. In all six countries, extensive areas are used for grazing purposes, with animals providing a primary source of food in the sparsely populated pastoral areas. Such pastures are not included in any of the categories in Table 3.

The portion of arable land used for permanent crops is shown because such crops reduce flexibility in land use. Permanent crops are important only in Kenya, Tanzania and Uganda. In both Kenya and Uganda a larger proportion of a growing land area has been covered with permanent crops.

In item 6 in Table 3, several factors need to be considered. First, there is some overlap between export crops and permanent crops. Second, not all of the output from these crops is exported. On the other hand, not all agricultural exports are included. In 1981, the ratio of export revenues from these crops to total value of merchandise exports was: Ethiopia, 64%; Kenya 43%; Sudan, 64%; Tanzania, 57%; and Uganda 77% (Food and Agricultural Organisation, 1983b and World Bank, 1983, Vol. 1: Economic Data Sheet 2). Almost all of Somalia's exports are live animals and animal products, so these crops are not relevant there.

We note in Table 3 that a growing proportion of land area has been devoted to export crops in all countries except Uganda. In three of the six countries, such export crops now account for more than ten per cent of the arable land. In most cases, it likely is not the marginal land which is devoted to such export crops.

The effect of moving some of the food production to marginal lands likely is one of the reasons for the negative rates of growth in yields per hectare for cereal grains in Somalia, Sudan and Tanzania. The other three countries have commendable yield increases; but only in Ethiopia is the growth in yields greater than the rate of population growth.

The attempt to measure productivity per hectare should be seen as a rough approximation only. Also, as indicated in the footnote to Table 3, the values are not comparable among the six countries. Again, Ethiopia and Kenya have commendable growth rates. In Sudan and Uganda, the growth rates are negative, no doubt reflecting the disruptive effects of civil unrest there. Both Somalia and Tanzania have remained relatively stagnant. There, increased agricultural supplies have come as much from expanding land area under cultivation as from increased productivity per unit of land. With growing proportions of land used for export crops, relatively stagnant yields per hectare overall does not point to an improved food situation.

To maximise yields per hectare the available evidence from the experience of other countries points to a small-holder approach to agricultural development (Cerrard, 1983: 16; Mellor and Johnston, 1984: 557-558). With abundant labour and relatively low rural wages, the necessary conditions exist in the Horn of Africa for such a development strategy. To facilitate such a strategy there is a need for a land tenure system which curbs the concentration of land ownership and for an agricultural support system designed to facilitate the advance of small farmers.

7. Growth in Rural Labour Force and Observed Changes in Labour Productivity

In section 5 we noted that an increase in the rate of population growth, caused primarily by a decline in infant mortality, will lead eventually to an increase in the rate of growth of the labour force. This result is becoming evident in the Horn of Africa, as is shown in the World Bank labour projections from 1980 to 2000 (item 1 in Table 4).

Table 4 highlights four aspects of the labour force in the six countries: 1) labour force growth for the remainder of this century will be equal to or greater than three per cent annually (with the exception

of Somalia); 2) the economies are still predominantly rural,* so much of this rapid growth in the labour force has to be absorbed in some way in the rural areas; 3) the labour forces in the rural areas in the six countries have been growing between 1.3 and 2.5 per cent annually from 1960 to 1980; and 4) the economies have a distinctly dual character with labour productivity in non-agricultural activity exceeding labour productivity in agriculture by a multiple of at least five.

Historically, development has tended to follow a path where non-agricultural activity draws sufficient numbers into productive activity so that the agricultural labour force declines in absolute size. On average, in the nineteen "industrial market economies", the percentage of the labour force employed in agriculture declined from 18 per cent in 1960 to 6 per cent in 1980 (World Bank, 1984: Table 21). Similarly, in the 8 "East European nonmarket economies" the decline was from 42 per cent in 1960 to 18 per cent in 1980.

For the present, pursuing the approach to development of either the West or the East is not an option in the Horn of Africa. The rate of growth of the labour force is too high. Since a significant portion of this growth has to be employed in rural areas, agricultural practices have to remain labour intensive and more of the marginal land will be drawn into production. Both factors militate against significant increases in agricultural labour productivity.

Despite such obstacles, credit must be given to Ethiopia and Kenya. Both managed to achieve commendable increases in agricultural production while absorbing large numbers of new entrants to the rural labour force. Whether they can continue to do so remains to be seen.

Looking to the future, non-agricultural activity will have to play a larger role in absorbing this growth in the labour force. All six countries are simply too poor to absorb significant numbers, with each labourer endowed with the amount of capital which now serves to generate the relatively high productivity of the labour force in non-agricultural activity.

* Somalia appears as a real anomaly here. The degree of urbanisation has increased from 17 per cent of the population in 1960 to 32 per cent in 1980. Yet, 82 per cent of the labour force is still employed in agriculture in 1980. It would appear that a number of farm-based people in Somalia are resident in villages large enough for them to be considered urban centres.

Table 4. Labour Force Growth and Labour Productivity in the Horn of Africa

	Ethiopia	Kenya	Somalia	Sudan	Tanzania	Uganda	Low Income Countries†	Middle Income Countries
1. Annual Rate of Labour Force Growth (%)								
1960-70	2.0	2.7	2.1	2.1	2.1	2.6	1.8	2.1
1970-82	1.7	3.3	2.9	2.8	2.6	2.1	2.3	2.4
Projected 1980-2000	3.0	4.2	2.0	3.0	3.4	3.5	3.0	2.6
Rural Labour Force Growth: 1960-1980	1.3	2.5	2.2	1.5	2.0	1.9		
2. Percentage of Labour Force in Agriculture								
1960	88	86	88	86	89	89	82	62
1980	80	78	82	78	83	83	73	46
3. Percentage of Population in Urban Centres:								
1960	6	7	17	10	5	5	12	33
1980	15	15	32	23	13	9	20	46
4. Labour Productivity in Agriculture (Constant U.S. \$)*								
1960	73	202	192	1,267	88	119		
1980	97	316	219	798	84	104		
Annual Rate of Growth (%):								
1960-1980	1.4	2.3	0.4	-2.3	-0.2	-0.7		
5. Labour Productivity in Non-Agricultural Activity (Constant U.S. \$)*								
1960	337	2,262	1,008	8,125	634	1,929		
1980	541	2,743	1,684	4,190	837	535		
Annual Rate of Growth (%):								
1960-1980	2.4	1.0	2.6	-3.3	1.4	-6.2		
6. Ratio of Non-Agricultural to Agricultural Labour Productivity								
1960	4.6	11.2	5.3	6.4	7.2	16.2		
1980	5.6	8.7	7.7	5.3	10.0	5.1		

† Low income countries excluding China and India.

* The productivity values are not comparable among the six countries as different base years were used to translate them to constant U.S. dollars.

Sources: Items 1,2 and 3 - World Bank, 1984: Table 21 and 22 (except the growth in rural labour force which was calculated from World Bank, 1983, Vol. 2: Social Data Sheet 1). Labour productivity was calculated from World Bank, 1983 Vol. 1: Economic Data Sheet 1; and Vol. 2: Social Data Sheet 1.

A starting point for an increased integration of agricultural and non-agricultural activity is to actively pursue a unimodal approach to agricultural development (Mellor and Johnston, 1984: 557). To achieve a unimodal approach, the countries of the Horn of Africa need to look to the models of Japan, Taiwan and South Korea, where the distribution of farm sizes are concentrated around the mean, and avoid the errors of Mexico and Colombia, where large numbers of small farmers struggle to co-exist with a small number of large farms (Gerrard, 1983: 16).

Without necessarily intending to do so, Uganda has made some significant strides in reducing the gap between agricultural and non-agricultural labour productivity. This is a contributing factor to Uganda's current ability to feed itself. It has eliminated much of the elite, with its distinct preference for imported cereals. (Of course, abundant supplies of arable land and more predictable rainfall levels are important elements as well.) Tanzania, in contrast, has attempted to plan development in such a way as to avoid dualism. A primary result has been stagnant productivity levels in agriculture, and hence growing dualism. The combination of the two effects generates a significant need for imported cereals and for food aid.

Where Sudan has an overall pattern somewhat similar to Uganda, the situation is quite different. Deteriorating productivity occurred during the 1960's in Sudan while in Uganda it occurred during the 1970's. For the past decade Sudan has made good productivity gains, although not nearly enough to offset the losses in the 1960's. With the improved productivity, some increase in dualism is occurring as well.

Increases in productive employment should represent a high priority in the Horn of Africa. Without improved employment opportunities, including increased productivity for agricultural labour, food prospects for certain groups in society -- landless rural workers, the urban poor, the handicapped, pastoralists and some small farmers -- will remain bleak. They lack the opportunity to grow adequate supplies of their own food, especially during periods of drought. Whenever they lack the ability to command adequate food supplies in the market, they suffer, malnutrition. Periodically, during periods of drought, they will be caught up in famines.

8. Levels of Investment

Capital is no longer seen as the primary determinant of development. Nonetheless, it does play an important role in enhancing the productivity of land and labour. In most cases, technological changes require some capital for successful implementation. In Table 5 we outline the levels and rates of growth of gross domestic investment plus provide an indicator of government priorities.

With reference to the proportion of Gross Domestic Product (GDP) devoted to investment, the six countries are similar to the average for low income countries. Because of their poverty the proportion of GDP devoted to investment in low income countries is significantly less than in middle income countries (item 1, Table 5). This, in turn, is a partial explanation of why there is a difference in the material standard of living between low income and middle income countries. For the six countries, the one exception is Kenya, with an investment pattern similar to middle income countries. The extent of foreign investment likely is a partial explanation for Kenya's investment performance.*

When we consider the rates of growth in investment (item 2, Table 5), most of the six countries performed above average for low income countries during the 1960's. With the increase in oil prices and the subsequent world recession, the heavy dependence on oil imports, and on primary commodity exports to pay for imports, served to depress the rates of growth of investment significantly in the 1970's. The exception is Sudan, likely reflecting a recovery from the serious adverse effects of civil unrest during the 1960's.

In some of these countries, actions by government need not necessarily reflect the priorities of the majority of the people. Nonetheless, governments are a major economic force in these economies. The proportion of public expenditure devoted to various items is an indicator of government priorities.

As shown in item 3 in Table 5, these countries are quite typical for low income countries in the proportion of GNP devoted to

* Net direct foreign investment in Kenya increased from \$13.8 million U.S. dollars in 1970 to 60.6 million U.S. dollars in 1981 (World Bank, 1983, Vol. 1: Table 7).

Table 5. Investment Patterns and Government Spending Priorities in the Horn of Africa

	Ethiopia	Kenya	Somalia	Sudan	Tanzania	Uganda	Low Income Countries [†]	Middle Income Countries
1. Percentage of GDP Spent on Gross Domestic Investment								
1960	12	20	10	9	14	11	13	20
1982	11	22	--	16	20	8	13	24
2. Annual Rate of Growth of Gross Domestic Investment (%)								
1960-70	5.7	10.3	4.3	3.2	9.8	7.5	4.6	7.6
1970-82	0.7	2.1	--	9.0	3.4	-8.0	3.2	6.6
3. Percentage of GNP Spent on:								
-Defense: 1972	2.0	1.3	3.1	4.6	2.3	5.0	2.4	3.0
1981	10.9*	3.0	6.9*	2.5	3.7	1.1	2.7	2.4
-Public Expenditure on Health and Education: 1972	2.8	6.3	1.7	2.8	4.8	5.0	4.7	3.7
1981	3.7*	8.1	2.7*	2.3	5.9	0.5	2.8	4.8
-Public Expenditure on Agriculture								
1972	0.4	1.3	1.9	4.4	3.0	--	--	--
1981	1.7(78)	3.1	1.5(78)	1.8(80)	1.1(79)	--	--	--
4. Fertilizer Consumption (100 grams per hectare of arable land)								
1970	4	224	31	31	30	13	85	206
1981	33	334	12	60	56	1	187	425

+ Low income countries excluding China and India.

* These values were taken from Sivard (1983).

Sources: Item 1 - World Bank, 1984: Table 5. Item 2 - World Bank, 1984: Table 4. Item 3 - World Bank, 1984: Table 26, except "Public Expenditure on Agriculture", which was estimated from World Bank, 1983, Vol. 1: Economic Data Sheet 2. Item 4 - World Bank, 1984: Table 6.

the military. The exceptions are Ethiopia and Sudan in 1981, reflecting their joint hostilities, and Uganda during Amin's administration. Three of the countries spent more on health and education than on defence, three spent less. Reliable data on economic expenditures on agriculture are difficult to obtain, but the percentages given in Table 5 suggest all the countries consider the military as important or more important than investing in agriculture. Efforts to stay in power take precedence over expanding food production. Such priorities may backfire, as occurred in Ethiopia in the first half of the 1970's.

The final indicator of productivity shown in Table 5 is the use of fertilizer in the six countries. Only Kenya shows fertilizer use in excess of the average for low income countries. Clearly, commercial fertilizer does not play an important role in the production of food in the Horn of Africa.

9. The Role of Agricultural Exports in the Horn of Africa

In section 6 we noted all six countries were expanding the proportion of arable land used for export crops. Given their food shortages, this raises the question why is more land being used to produce export crops. In Table 6, data relevant to answering this question are presented.

As indicated in Table 6, the Horn of Africa depends heavily on the export of food and beverages as a source of foreign exchange. If non-food agricultural exports are added to food and beverage exports, the ratio of agricultural exports, as a per cent of total merchandise exports, exceeds 90 per cent for Somalia, Sudan and Uganda, 80 per cent for Ethiopia, and 70 per cent for Tanzania. Only Kenya has been able to diversify exports sufficiently to reduce the role of agricultural exports to just over one half.

There are a minimum of four reasons why agricultural exports play such an important role: 1) the countries have little else to offer that commands a significant price on the international market; 2) import needs are growing; 3) the terms of trade (export prices divided by import prices) have not been particularly favourable to the Horn of Africa; and 4) international debts have to be serviced.

Table 6. Agricultural Exports, Energy Imports, Terms of Trade and Debt Service Ratios in the Horn of Africa

	Ethiopia	Kenya	Somalia	Sudan	Tanzania	Uganda	Low Income Countries ⁺	Middle Income Countries
1. Food and Beverage Exports as a Per Cent of Total Merchandise								
Exports: 1962	80.3	59.3	82.9	44.3	--	62.6		
1970	85.9	63.1	85.5	24.6	49.8	68.4		
1980	74.1	43.8	88.6	46.9	58.1	--		
2. Energy Imports as a Per Cent of Total Merchandise Imports								
1960	11	18	4	8	--	5	10	9
1978	20	30	--	24	--	--	--	20
1981	44	63	2	44	50	--	42	27
3. Terms of Trade (1980=100)								
1960	146	131	121	104	99	93	121	101
1975	98	98	84	126	101	76	109	101
1979	139	108	116	98	105	103	108	99
1982	74	87	111	85	86	74	87	91
4. Debt Service Ratio (%)								
1970	11.4	5.4	2.1	10.7	4.9	2.7	5.7	10.1
1982	9.5	20.3	7.2	7.5	5.1	22.3	9.9	16.9
5. Value of Net Exports of Food and Beverages (million U.S. \$)								
1970	92	158	13	13	104	167		
1980	259	367	57	31	189	--		
6. Value of Net Exports of Agricultural Commodities (mill. U.S.\$)								
1970	101	185	13	219	175	222		
1980	287	416	46	368	276	--		

⁺Low income countries excluding China and India.

Sources: Item 1 - World Bank, 1983, Vol. 1: Table 5. Item 2 - World Bank, 1984: Table 8 and World Bank, 1981: Table 7. Item 3 - World Bank, 1984: Table 9 and World Bank, 1981: Table 8. Item 4 - World Bank, 1984: Table 16. Items 5 and 6 - calculated from World Bank, 1983, Vol. 1: Economic Data Sheet 2 and Table 5 and 6.

To illustrate the growing import needs, energy imports are shown in Table 6. The combination of a growing transportation system, based on fossil fuels for energy, and rapidly increasing oil prices has had its effect on all countries except Somalia.*

As Table 6 illustrates, terms of trade fluctuated considerably. The overall situation for low income countries is outlined by the World Bank (1981: Figure 3.3). During the 1970's these countries increased the quantity of their primary commodity exports by more than 80 per cent. But, during the same period, prices for these exports dropped by more than 60 per cent. As a result, the "export purchasing power" of these countries increased by less than 20 per cent during the decade. In this decade, percentage changes in the terms of trade for low income African countries were: -5.5 in 1981, -1.9 in 1982, and 3.0 in 1983 (World Bank, 1984: 24). In the Horn of Africa, all six countries were affected adversely by the 1980 to 1982 world recession.

The need to service debt (pay interest and principal due on international loans) accounts for less than ten per cent of the value of exports in all countries except Kenya and Uganda. In part this reflects the unwillingness of international lenders to invest in low income producers of agricultural exports. Nonetheless, to assure additional credit, existing debt must be serviced. Agricultural exports to the developed countries are the means of servicing such debt.

In conclusion then, we return to the subject with which we started: the international exchange of 'food'. In item 5 of Table 6 the value of food and beverage exports, less the value of food and beverage imports, are given. Summing across the six countries, the Horn of Africa made a net contribution of approximately one billion dollars worth of food and beverages to the rest of the world. When we consider all agricultural exports, the Horn of Africa contributed, net, approximately 1.5 billion dollars worth of agricultural commodities. The food aid received and the food aid projected for 1984/85, as reported in Table 1, needs to be seen in the light of this net outflow of agricultural commodities from the Horn of Africa.

* Kenya re-exports part of the oil in the form of refined petroleum products, so the numbers given overstate Kenya's energy import needs.

Such a net export of food, in the face of food shortages, raises the question: why does it occur. The immediate answer seems simple: it pays for all participants in this trade of agricultural output. It must pay for the profit-seeking plantations and corporate agribusinesses. Informal conversations indicate the FAO has data which demonstrate that small-scale indigenous producers in low income countries have achieved a level of income, as a result of export crop production, above what they could have earned producing food for the local market. Agricultural exports also serve as a primary source of tax revenue for many governments and as a primary source of foreign exchange, to finance capital imports and to finance the import tastes of the elite.

The export of semi-exotic foods and industrial crops may also command a larger quantity of cereals on the international market than would be grown on the land used for export crops. For low income countries, the difference in cereals that could be purchased via trade and the cereals that would be grown on land now devoted to export crops has been estimated to range from a multiple of 1.5 to 20 in 1963 to a multiple of 1.5 to 10 in 1975 (Hillman, 1981: Table 1).

Hence, it can be shown to pay for the country as a whole, for the participants in the export trade, and for the ruling elite. The problem is one of the distribution of the gains from trade. The pursuit of personal advantage by those in control of the means of production has increased the vulnerability of the people in the lower income groups in these countries. They suffer because they have limited or no access to the means of producing their own food -- land, farm inputs, credit, etc. -- and they find it difficult to obtain regular, remunerative employment. They are the victims of the extensive exportation of semi-exotic food and industrial crops. Their malnutrition is the opportunity cost of the taste preferences of the elites for imported goods and the high priority given by the governments to the military.

Bibliography

Brown, Lester R. (1973-74).

"The Next Crisis? Food," Foreign Policy. 13. pp. 3 - 33.

Cleaver, Kevin (1984).

"Africa's Agricultural Crisis: Problems, Policies and Solutions."

An outline of a lecture presented at the Institute for Development Studies, University of Nairobi, Nairobi. 8pp.

Crawley, Eduardo (1980)

"The Politics of Food," South. (December). pp. 22 - 27.

Eicher, Carl K. (1982)

"Facing up to Africa's Food Crisis," Foreign Affairs. 61. pp. 151-174.

Food and Agriculture Organisation (1984).

"The 1984/85 African Food Emergency," Food Outlook. (December). pp. 4-6.

(Food Outlook is published monthly. Contact: Mr. P.M. Newhouse, Senior Economist, Food Information Group (ESC), FAO, Rome (telex: 610181 FAO I).)

Food and Agriculture Organization (1975).

Yearbook of Production Statistics, 1974. Rome: Food and Agriculture Organisation.

Food and Agriculture Organisation (1979).

Yearbook of Production Statistics, 1978. Rome: Food and Agriculture Organisation.

Food and Agriculture Organisation (1983a).

Yearbook of Production Statistics, 1982. Rome: Food and Agriculture Organisation.

Food and Agriculture Organisation (1983b)

Yearbook of Trade Statistics, 1982. Rome: Food and Agriculture Organisation.

Frankel, Glenn (1984).

"Kenya Struggles to Break Africa's Cycle of Hopelessness," The Washington Post. (November 18)

Fryer, Jonathan (1981).

Food for Thought: The Use and Abuse of Food Aid in the Fight Against World Hunger. Geneva: World Council of Churches. 54pp.

Gerrard, Christopher D. (1983).
Promoting Third World Agriculture: Lessons of Recent Experience.
Ottawa: North-South Institute. 64pp.

Johnston, Bruce F. (1980)
"Agricultural Production Potentials and Small-Farmer Strategies in Sub-Saharan Africa", in Robert H. Bates and Michael F. Lofchie. (eds.), Agricultural Development in Africa: Issues of Public Policy. New York: Praeger Publishers, Ltd. pp. 311-348.

Kidron, Michael and Segal, Ronald (1981)
"The State of the World Atlas. London: Pan Books.

Mellor, John W. and Johnston, Bruce F. (1984).
"The World Food Equation: Interrelations Among Development, Employment, and Food Consumption," Journal of Economic Literature. 22. pp. 531-374.

North-South Institute (1983).
"Africa's Economic Crisis." Ottawa: North-South Institute. (February).

Poleman, Thomas T. (1981).
"Quantifying the Nutrition Situation in Developing Countries," Food Research Institute Studies. 18. pp. 1 - 58.

Rempel, Henry (1983).
"The International Exchange of 'Food': The Case of Africa." A paper presented at the Canadian Economics Association Meetings held at the University of British Columbia, Vancouver, (June 2 - 4). 23pp.

Rogal, Kim, et. al. (1984).
"Can Black Africa Be Saved?" Newsweek. (November 19). pp. 22-26.

Scrimshaw, Nevin S. and Taylor, Lance (1980).
"Food", in Scientific American, Economic Development. San Francisco: W.H. Freeman and Company. pp. 26-36.

Sen, Amartya (1981).
Poverty and Famines: An Essay on Entitlement and Deprivation.
Oxford: Clarendon Press, 1981. 257pp.

Singh, Shamsher (1983).
"Sub-Saharan Agriculture: Synthesis and Trade Prospects." Staff Working Paper No. 608, The World Bank, Washington D.C. 157pp.

Sivard, Ruth L. (1983).
World Military and Social Expenditures, 1983. Leesburg: World Priorities Inc.